

ABSTRACT

A device for measuring fluid flowing in a duct is disclosed. The device includes a housing having a first flow passage, a nozzle, a second flow passage, a first electrical element, and a second electrical element. The first flow passage receives a first portion of the fluid flowing in the duct. The nozzle is connected to the housing and in fluid communication with the first flow passage. The second flow passage is defined by at least a first and second surface disposed in the housing, wherein the first surface has a first surface portion inclined relative to a second surface portion. The first electrical element is mounted in the first flow passage proximate to the nozzle. The second electrical element is mounted in the second flow passage. The first and second electrical elements are connected to at least one circuit for detecting a characteristic of the flowing fluid.